Bishop Milner CATHOLIC COLLEGE

Year 8 CURRICULUM PLAN for Design and Technology

The curriculum for this stage of students' education has been designed to be inclusive for all and build on the knowledge gained in Yr. 7, where students should have produced creative work becoming increasingly proficient in designing, analysing and the use of a variety of tools, acrylic, timbers and manufactured boards. The aim is to increase their proficiency in designing with the needs of a client in mind and to increase their confidence working with polymers; to extend their range subject specific vocabulary and enable them to competently analyse and evaluate their own work, and that of others, in order to observe closely, think critically and discuss respectfully. Students will also acquire skills that can be applied to cross-curricular topics, allowing them to reflect on and explore topics in greater depth. This should foster a love of Design and Technology and its application across the whole curriculum.

HALF TERM 1: R&D Timber and acrylic desk tidy DMA

Students will develop skills in research and analysis existing desk tidies to progress their design ideas and understand why designers use other products when they design. This will then involve students making an egg and toast rack to learn and develop skills needed to design and manufacture their desk tidy. Students will also develop their skills in being able to read working drawings,

STUDENTS MUST KNOW:

- **How to use existing products and images to drive ideas.**
- **How to analyse existing products to make their designs better, but to also make them better consumers.**
- **How to read a working drawing and accurately product a final product by working in mm.**
- **Accurately mark out and cut the acrylic in a variety of ways.**

HOW THIS WILL BE ASSESSED:

Formal assessment based on research skills.. Self and peer assessment opportunities and informal verbal feedback

HALF TERM 2: Finish acrylic egg and toast holder FPT and finalise design for desk tidy.

Students will develop their skills in how to use bending jigs and formers to accurately produce identical final products. All students produce a final product which will link into how to acrylics behave, knowledge needed to finalise their desk tidy designs.

STUDENTS MUST KNOW:

- **How to use jigs and formers and how these increase accuracy and consistence in manufacture. This is building on the Yr. 7 project and building into the yr. 8 project. It also starts to replicate how the NEA works at GCSE.**
- **How to measure and take dimensions of objects to store in their desk tidy.**
- **How to draw design ideas in isometric – Orthographic.**

HOW THIS WILL BE ASSESSED:

Formal assessment based on accuracy of manufacture of the egg holder. Self and peer assessment opportunities and informal verbal feedback.

Formal assessment of analysis using an in-class test.

HALF TERM 2: Manufacture Acrylic & timber desk tidy

Students will revisit skills from the egg and toast rack to finalise their desk tidy designs. This will progress into students using workshop machines and tools to produce a pine and acrylic desk tidy, some ideas may need hardwood base.

STUDENTS MUST KNOW:

- **How to use a template to increase accuracy in production.**
- **The benefits of learning skills before finalising a design and then manufacturing.**
- **How to construction simple butt and screw joints between two different materials.**
  The different tools needed for different materials.

HOW THIS WILL BE ASSESSED:

Formal assessment based on final 3D desk tidy, accuracy, creativity along with range of different skills shown. Self and peer assessment opportunities and informal verbal feedback.

Embedding this knowledge can be supported at home by encouraging them to be creative –, take photographs of interesting designs and products and practise the skills we are learning in class, visiting design museums, exhibits, festivals, and free public events to encourage saturation in the creative aspect of the course. Watch programs such as 'How it's made', 'Inside the factory' and 'Scrapheap challenge'. In addition going online to enjoy technology creativity via websites such as 'Technology student' , BBC Ks3 bitesize and trying the quizzes on 'Education Quizzes'.

As students rotate D&T with Food they will spend half of the year in food and half of the year in the multi-materials areas, so therefore the order of the skills may change depending on which area of the subject the student starts in.